HELICAL END MILL TYPE CUTTER CONFIGURED TO COMPENSATE FOR RADIAL RUNOUT

ABSTRACT OF THE DISCLOSURE

An end mill type rotary cutting tool and associated cutting inserts that collectively compensate for radial pocket runout, thereby eliminating overlap marks in a machined work piece. The tool has pockets arrayed in helical flutes such that after one insert has abraded the work piece, a subsequent flute makes an overlapping pass. The inserts are so mounted in the cutting tool and have curved corners configured such that no degree of pocket runout due to manufacturing tolerances will cause any portion of the cutting edge of any insert to form an incuse cut in the work piece which penetrates the machined surface by more than the manufacturing tolerance. Thus overlap of inserts eliminate outward projections in the machined work piece and dimensions and configuration of the inserts and their pockets eliminate inward gouges, thereby eliminating visible overlap marks in the work piece.